



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO.: AT9-99-525

In re Application of:

**VIKTORS BERSTIS**

Serial No.: 09/404,398

Filed: September 23, 1999

For: **PERSONAL PRODUCT LOCATOR  
ON STORE-OWNED SHOPPING AID**

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Examiner: **ARTHUR D. DURAN**

Art Unit: 3622

**APPEAL BRIEF UNDER 37 C.F.R. 1.192**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

This Appeal Brief is submitted in triplicate in support of an Appeal of the Examiner's final rejection of Claims 1-24 in the above-identified application. A Notice of Appeal was filed in this case on December 6, 2002 and received in the patent office on December 13, 2002. Please charge the fee of \$320.00 due under 37 C.F.R. § 1.17(c) for filing the brief, as well as any additional required fees, to IBM Deposit Account No. 09-0447.

**CERTIFICATE OF MAILING  
37 CFR 1.8(A)**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner of Patents and Trademarks, Box Non-Fee Amendments, Washington, D. C. 20231.

2/12/03  
Date

*Shenue Ramdeen*  
Signature

### **REAL PARTY IN INTEREST**

The real party in interest in the present Appeal is International Business Machines Corporation, the Assignee of the present application as evidenced by the Assignment recorded at reel 010276 and frame 0522.

### **RELATED APPEALS AND INTERFERENCES**

The decision on the present Appeal will directly affect or be directly affected by appeals of the following applications: Ser. No. 09/404,405 (Atty. Doc. No. AT9-99-526) with Appeal Brief filed on December 7, 2001; and Ser. No. 09/404,405 (Atty. Doc. No. AT9-99-379) with Notice of Appeal filed on January 21, 2003. There are no other appeals or interferences known to Appellants, the Appellants' legal representative, or assignee, which directly affect or would be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **STATUS OF CLAIMS**

Claims 1-24 stand finally rejected by the Examiner as noted in the Final Office Action dated September 6, 2002.

### **STATUS OF AMENDMENTS**

Appellant's Amendment A, filed on June 27, 2002, was entered by the Examiner. No amendments to the claims have been made subsequent to the final rejection that leads to this appeal.

### **SUMMARY OF THE INVENTION**

Appellant's invention provides a method and system for utilizing a product locator unit that receives infrared (IR) signals containing localized product identifying information being broadcasted in a specific area in which the customer is traveling in order to identify when items desired by the customer is in vicinity of the customer. The invention also provides a method and system for electronically redeeming coupons by beaming the electronic coupons from the locator unit to the checkout register.

A customer pre-selects items desired for purchase and applicable coupons prior (see page 16, line 23 - page 17, line 18), and the selected items and coupons are either stored within a customer profile database (see page 19, lines 4 - 16) or stored on a portable device (product locator unit) (see page 19, lines 16 - 22 and page 25, lines 1 - 15). The product locator unit is equipped with an IR receiving port that detects IR signals, and the device comprises comparison algorithm for determining if the broadcasted localized product identifying information includes any of the pre-selected items (see page 25, lines 15 - 26). Thus, when the customer enters the sales environment and moves within the localized area in which a particular list of product identifying information is being broadcasted as an IR signal, the product locator unit receives the IR signal and, following a check against the pre-selected items, alerts the customer whenever one of the pre-selected, desired items is at that particular location.

With the product locator unit implementation, the pre-selection, locating, and signaling features are completed without a larger computer network and customer profile database. Alternatively, when a shopping cart attached location device is utilized, a customer ID that is associated with each customer profile is provided to the location device, and the location device then downloads the list of pre-selected items and coupons from the customer profile database (see page 22, line 22-29; see also page 23, line 1- 19 and page 25, line 1-10).

Appellants' exemplary Claim 8 recites key features of Appellants' application including: "an infra red (IR) sensor that receives IR signals with digitized product identification information while said product locator unit is within a location in which said IR signal is being broadcasted; and means for signaling to said customer that a desired product is within the vicinity of said customer when said program algorithm finds a match ..., wherein said customer is alerted to the presence of a desired item when that desired item is in the vicinity of said customer."

### **ISSUES**

The primary issue for appeal is whether Examiner's rejection of Appellants' invention as being unpatentable over the combination of Ogasawara (U.S. Patent No. 6,123,259) in view of Jelen (U.S. Patent No. 6,129,276) is well founded? Correct analysis of that issue entails a determination whether the combination of Ogasawara and Jelen suggests to one skilled in the art

(1) a customer IR-enabled device that receives location specific IR signal that contains the identifying information of products in a specific location of a retail environment and which utilize the IR signal to determine whether a pre-selected item is within the vicinity of the customer. Further resolution of this issue involves a determination whether the combination suggests to one skilled in the art (2) the redemption of electronic coupons by beaming coupon data from a product locator unit directly to a check-out register.

### **GROUPING OF THE CLAIMS**

For purposes of this Appeal, Claims 1, 2, 4-6, 8, 9, 11-13, 15-17, 19-21 stand or fall together as Group I. Claims 3, 7, 10, 14, 18, and 22-24 stand or fall together as Group II.

### **ARGUMENT**

The present appeal is filed in response to the Final Office Action dated September 6, 2002, in which Examiner rejected Claims 1-24 of Appellants' application under 35 U.S.C. § 103(a) as being unpatentable over Ogasawara (U.S. Patent No. 6,123,259) in view of Jelen (U.S. Patent No. 6,129,276). That rejection is not well founded and should be reversed.

At paragraph 3 of the Office Action, the claims of Group I and Group II are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogasawara, in view of Jelen, et al. The combination of Ogasawara and Jelen does not render Appellant's invention unpatentable because that combination fails to suggest specific features or combination of features provided by exemplary claims 3 and 8 of Appellant's invention.

#### **A. Group I Claims: No IR Receiver for Localized Product Identifying Information**

Appellant hereby incorporates by reference the arguments provided in Response B filed on September 27, 2002 and Amendment A filed on June 27, 2002. Appellant further reiterates that the key functional elements of Appellant's claims, i.e., (1) an infrared (IR) receiver that receives IR signals with localized product information and (2) a signaling mechanism for alerting the customer to a presence of a desired product identified by the received IR signal, are not taught or suggested by Ogasawara.

Examiner states that Ogasawara (at Col. 9, line 8-15) discloses alerting a customer of the location of a desired product. Column 9, lines 8-15 discuss the server transmitting scanned SKU code information to the mobile terminal and assigning the location of the product as the customer's location that is then used to determine and map the location of a next desired item. Thus, Ogasawara operates as a finder for a next product, which may actually be far away from the customer's present location.

The "signaling" feature of Appellant's claim, however, actually signals when the product is in the proximate physical presence of the customer. Thus, when the received IR signal contains the product ID of one of the products desired that is in the immediate vicinity of the customer the signaling feature is triggered.

Examiner further states that Ogasawara discloses the installation of a signaling mechanism for projecting digitized product information within particular areas of a retail environment. However, the section of Ogasawara being relied upon by Examiner to provide this feature (namely, col 6, lines 37-59) provides a description of the customer location recognition feature (within the server) that recognizes the customer's current location and provides directions to promotional items on store shelves proximate to the customer location or to a next/nearest item on the list.

Examiner clearly mis-characterizes this section of Ogasawara since the section does not describe projecting digitized product information via a signaling mechanism. Rather, Ogasawara transmits scanned product information back to a server, and the server automatically assumes the customer is at the location assigned to the scanned product and, based on this assumption, sends data about products in that location.

One obvious drawback of Ogasawara's system is that when the product scanned is not in its correct (assigned) location, as commonly happens in retail establishments when other customer's mis-shelves or moves a product, the information sent back to the mobile terminal from the server (including the directions to the next item or the promotions on nearby items) will be incorrect. Appellant's claimed invention eliminates this problem by providing actual

digitized information directly to the locator unit about products in the area currently being traveled by the customer.

Notably, Examiner admits that Ogasawara does not teach the utilization of infrared to transmit the "localized" product information that is received by the IR receiver of the product locator unit. Examiner relies on Jelen to provide the teaching/suggestion of this features in order to support the §103 rejection based on the combination of Ogasawara and Jelen.

Jelen provides a shopping cart-mounted, portable device (terminal) and a method for electronically providing a shopping list and coupon information (Abstract, Summary, etc.). Examiner correctly states that Jelen discloses a communication scheme that utilizes infrared. However, Jelen does NOT provide or receive localized product information via infrared (i.e., identifying information of products that are in the local area in which the terminal is situated). Jelen's utilization of infrared is for communicating between the shopping cart and a host computer via a LAN. Specifically, the infrared is utilized to detect the terminal location within the store (col 9, line 56- col 10, line 2).

Like Ogasawara's use of the mobile terminal, Jelen utilizes the portable terminal to scan barcodes (dataform) the customer wishes to purchase or price items in the store (see col 5, lines 15- 45). Alternatively, the customer may move the item to the reader (id., at lines 45-58). Jelen describes the terminal as operating as a TCP/IP web browser (col 8, line 53- col 9, line 28) that allows a user to select items and then verify if he/she wants to purchase the item (see col 9, lines 29-55).

Given its broadcast interpretation, the combination of Jelen with Ogasawara suggests a mobile terminal/unit that is used to scan items and transmit the bar code information back to a central server, where the assigned location of the item scanned is utilized as the location of the customer. The location of the customer is then utilized to provide directions to a next desired product via infrared. The combination, however, does not teach or suggest those specific features, such as use of infrared with location specific product identifying information, which Appellant has previously shown are not taught or suggested by Ogasawara.

For the above reasons, one skilled in the art would not find Appellant's invention obvious in light of the combination. The claims of Group II are therefore allowable over the combination.

**B. Group II Claims: No Automatic Redemption of Coupons by Beaming to Register**

In addition to the above, the combination of Jelen with Ogasawara also fails to teach or suggest the electronic coupon redemption features recited by Exemplary Claim 3 of Group II. Exemplary Claim 3 specifically recites: "providing remote electronic redemption of coupons associated with said desired products during checkout at a checkout register by beaming said coupon information from said product locator to said checkout register when said desired product is scanned at said checkout register."

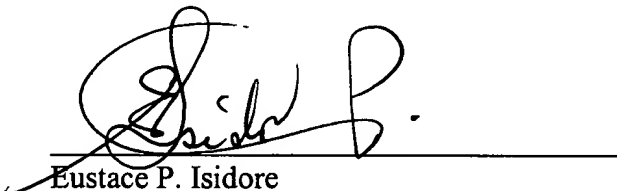
Examiner relies on Jelen to support the rejection of this feature of Appellants' invention. The cited sections of Jelen, however, provides a general description of a cash checkout program operating between the server/host and the cashier's terminal (col. 11, line 59 – col. 12, line 6) and a description of storing the electronic shopping list and coupon file program in a customer terminal and then loading the shopping list and coupon file up to the merchant's server (col 15, lines 10-17). The latter reference occurs during selection of the desired items and NOT during check out at the checkout register. Clearly, Examiner has again mis-characterized what is taught or suggested by the reference, and the combination of the references does not suggest the electronic redemption of coupons by beaming the coupon data to the checkout terminal.

For the above reasons, one skilled in the art would not find Appellant's invention obvious in light of the combination. The claims of Group II are therefore allowable over the combination.

CONCLUSION

Appellants have pointed out with specificity the manifest error in the Examiner's rejections, and the claim language which renders the invention patentable over the combination of references. Appellants, therefore, respectfully requests that this case be remanded to the Examiner with instructions to issue a Notice of Allowance with respect to all pending claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "E. Isidore", is written over a horizontal line.

Eustace P. Isidore

*Registered with Limited Recognition (see attached)*

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ATTORNEY FOR APPELLANTS



## APPENDIX

1. A method for providing a location of products to a customer in a retail environment, said method comprising the steps of:

attaching a product locator unit to a shopping aid that is utilized within said retail environment, said product locator unit having an access point for entering a customer ID, a storage location for electronically storing a list of customer desired products, an infra red (IR) receiver that receives IR signals with localized product information at specific locations in which said IR signal is broadcasted, a program algorithm for comparing said localized product information with product identifiers (IDs) of said customer desired products, and, a signaling mechanism for alerting said customer to a location of a desired product, said location being identified by said received IR signal; and

enabling in-shopping signaling to said customer of the presence of a desired product when said customer is in the vicinity of said desired product, wherein said signaling is completed responsive to a (1) receipt of an IR signal at a particular location by the IR receiver of the product locator unit; and (2) correct matching of the ID of said desired product with said localized product information within said IR signal received.

2. The method of Claim 1, wherein said product locator unit in said attaching step comprises a base unit and a portable unit, said enabling step further comprising:

receiving product signals being projected within said retail environment utilizing a signal sensor of said portable unit; and

transmitting said product signals back to said base unit, wherein said base unit completes the comparison of said product signals with said product IDs of said desired products; and

signaling back to said portable unit when said comparing step results in a match, wherein said customer is immediately alerted via said portable unit of a location of said desired product.

3. The method of Claim 1, further comprising:

enabling storage of electronic coupons along with said desired products within said product locator unit; and

providing remote electronic redemption of coupons associated with said desired products during checkout at a checkout register by beaming said coupon information from said product locator to said checkout register when said desired product is scanned at said checkout register.

4. The method of Claim 1, further comprising installing a signaling mechanism for projecting said digitized product information within particular areas of said retail environment.

5. Canceled

6. The method of Claim 1, wherein said enabling step includes the step of printing a report for said customer, said report including a list of desired products and their location.

7. The method of Claim 2, wherein said portable unit has a tag which identifies the particular shopping aid, said enabling step includes the steps of:

linking said tag to said customer ID following entry of said customer ID in said product locator unit; and

remotely identifying said customer ID to a cash register when said tag is brought towards said cash register, thereby allowing for the application of product discounts associated with said desired products via said customer ID.

8. (Amended) A system for providing a location of products to a customer in a retail environment, said system comprising:

a product locator unit that is attachable to a shopping aid utilized within said retail environment, said product locator unit comprising:

an access point for entering a customer ID;

a storage location for storing a list of customer desired products;

an infra red (IR) sensor that receives IR signals with digitized product identification information while said product locator unit is within a location in which said IR signal is being broadcasted;

a program algorithm for deciphering said digitized product identification information and comparing said digitized product identification information with product IDs of said customer desired products for a match; and

means for signaling to said customer that a desired product is within the vicinity of said customer when said program algorithm finds a match; and

means for providing in-shopping product location and coupon redemption services to said customer utilizing said product locator unit, wherein said customer is alerted to the presence of a desired item when that desired item is in the vicinity of said customer.

9. The system of Claim 8, wherein said product locator unit comprises a base unit and a portable unit, and further comprises:

means for receiving product signals being projected within said retail environment utilizing a signal sensor of said portable unit; and

means for transmitting said product signals back to said base unit, wherein said base unit completes the comparison of said product signals with said product IDs of said desired products; and

means for signaling said portable unit when said comparing results in a match, wherein said customer is immediately alerted via said portable unit of a location of said desired product.

10. The system of Claim 9, further comprising:

means for storing electronic coupon information associated with said desired products;

means for providing remote electronic redemption of coupons/discounts associated with said desired products during checkout at a checkout register by beaming said coupon/discount information from said product locator unit to said checkout register when said desired product is scanned at said checkout register.

11. The system of Claim 8, further comprising an IR signaling mechanism for projecting product identification information within specific areas of said retail environment.

12. The system of Claim 8, wherein said product locator unit further comprises a display screen for visually displaying a location of a desired product within the vicinity of said product locator unit.

13. The system of Claim 8, further comprising means for printing a report for said customer, said report including a list of desired products and their location.

14. The system of Claim 9, wherein said portable unit has a tag, which identifies the particular shopping aid, said system further comprising:

means for linking said tag to said customer ID following entry of said customer ID in said product locator unit; and

means for remotely identifying said customer ID to a cash register when said tag is brought towards said cash register, thereby allowing for the application of product discounts associated with said desired products via said customer ID.

15. A computer program product for providing a location of products to a customer in a retail environment, said computer program product comprising:

a computer readable medium; and

program instructions on said computer readable medium for:

enabling a product locator unit attached to a shopping aid utilized within said retail environment to identify customer desired products located within a vicinity of the shopping aid, signal that said desired product is located in the vicinity, and remotely redeem electronic coupons for said desired product during checkout by beaming coupon data to a checkout register.

16. The computer program product of Claim 15, wherein said product locator unit is comprised of a base unit and a portable unit, said program instructions further comprising program instructions for:

receiving product signals being projected within said retail environment as input;

encoding and transmitting said product signals back to said base unit;

comparing said product signals with said desired products to determine a match;

signaling back to said portable unit when said comparing step results in a match; and

in response to said signaling step, alerting said customer via said portable unit of a location of said desired product.

17. The computer program product of Claim 15, said product locator having an access point for entering a customer ID, a signaling mechanism for alerting said customer to a location of a desired product, and a program algorithm for correctly identifying said desired product, said program product further comprising program instructions for:

receiving a list of user specified desired products, said desired product being linked to said customer ID;

comparing said desired products to products found in particular locations of said retail environment to determine a location of said desired products; and

signaling to said customer the location of said desired product via said signaling mechanism.

18. The computer program product of Claim 15, wherein said program instructions further comprises program instructions for receiving a download of coupon data along with product IDs from a database upon entry of said customer ID.

19. The computer program product of Claim 15, wherein said program instructions for said signalling step includes program instructions for visually displaying a location of a desired product on a display screen of said product locator unit.

20. The computer program product of Claim 15, wherein said program instructions for said signalling step includes program instructions for printing a report for said customer, said report including a list of desired products and their location.

21. Canceled

22. The method Claim 1, wherein said enabling step comprises receiving a download of product IDs and associated electronic coupon data when said customer ID is entered into said product locator unit.

23. The system of Claim 7, wherein said product locator unit further comprises means for receiving a download of product IDs and associated electronic coupon data when said customer ID is entered into said product locator unit.

24. A product locator unit for use within a retail environment, said unit comprising:  
connection means for connecting said unit to a shopping aid utilized within said retail environment;

an access point for entering a customer ID;

means for receiving data associated with an electronic list of customer desired products;

a storage location for storing said electronic list of customer desired products;

an infra red (IR) sensor that receives IR signals with digitized product identification information while said product locator unit is within a location in which said IR signal is being broadcasted;

a program algorithm for deciphering said digitized product identification information and comparing said digitized product identification information with product IDs of said customer desired products for a match; and

means for signaling to said customer that a desired product is within the vicinity of said customer when said program algorithm finds a match;

means for receiving and storing electronic coupon information associated with said desired products;

means for providing remote electronic redemption of coupons/discounts associated with said desired products during checkout at a checkout register by beaming said coupon/discount information from said product locator unit to said checkout register when said desired product is scanned at said checkout register.